



22065511

**INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY
HIGHER LEVEL AND STANDARD LEVEL
PAPER 1**

Monday 15 May 2006 (afternoon)

Candidate session number

1 hour

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INSTRUCTIONS TO CANDIDATES

- Write your session number in the boxes above.
- Do not open this examination paper until instructed to do so.
- Answer all the questions in the spaces provided.



1. Photo editing allows photographs to be transformed into new fake images. Here is an example:



Source: [<http://www.worth1000.com/help.asp?help=contesttypes>]

- (a) Identify **two** ways in which photo editing software can be used to create a photo of a situation that never existed. **[2 marks]**

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(Question 1 continued)

(b) Describe how such photographs might be verified for their authenticity. **[4 marks]**

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(c) Discuss how the enhancement of digitally produced photographs may be misused. **[4 marks]**

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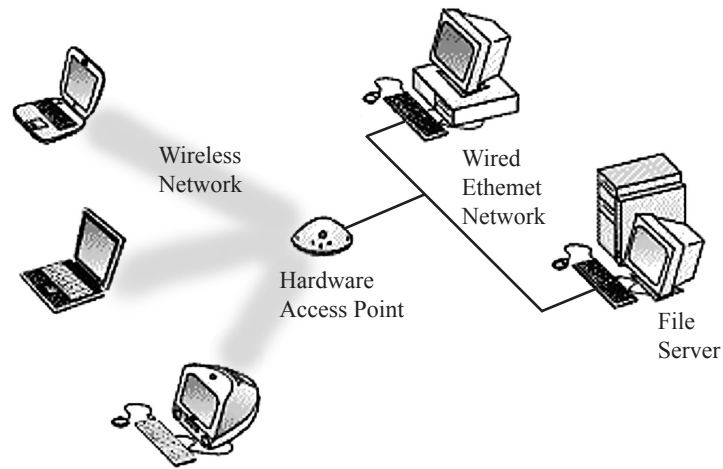
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2. The development and convergence of modern technologies is having an enormous impact on the implementation of computer networks.



Source: [<http://www.vicomsoft.com/knowledge/reference/wireless1.html#1>]

- (a) Identify **two** technological developments that have led to the widespread use of wireless networks. *[2 marks]*

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(Question 2 continued)

- (b) Wireless LANs are increasingly being installed as a service in businesses, coffee shops and outdoor spaces to allow access to information.

Describe **two** benefits of this service for users.

[4 marks]

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- 3. Individuals can now telephone worldwide using only the Internet (Internet Telephony VoIP). No standard telephone services are then necessary.



Source: [<http://www.skype.com/products/skype/windows/>]

- (a) Identify **two** technological requirements for people to use Internet telephony. **[2 marks]**

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- (b) Describe **one** advantage for individuals who use Internet telephony compared with using a conventional telephone service. **[2 marks]**

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- 4. The growth in the use of Information Technology systems and their adoption by many business and government organizations has led to the development of new types of crime. New organizations like CYBERCRIME.GOV, have been formed to try to detect and stop crime involving IT.



WWW.CYBERCRIME.GOV
 Computer Crime and Intellectual Property Section (CCIPS)
 of the Criminal Division of the U.S. Department of Justice

Source: [<http://www.cybercrime.gov/>]

- (a) Identify **two** types of crime that are associated with the widespread use of IT. **[2 marks]**

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(Question 4 continued)

- (b) Phishing is the use of fraudulent websites and emails in order to extract personal details such as bank passwords from users. Often the communications are made to look very much like official communications from a bank or other organization.

Describe **two** pieces of advice that a bank can give to customers to help them avoid such dangers.

[4 marks]

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(Question 4 continued)

- (c) Discuss how it may be possible for a bank to become aware of fraudulent transactions taking place in its customers' accounts.

[4 marks]

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